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**DETAILED DESCRIPTION**

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**[Detailed Description of the Invention]**

[0001]

[Field of the Invention] This invention relates to the fixture which lays on a roof solar-battery one apparatus roofing which fixed the solar panel on the front face.

[0002]

[Description of the Prior Art] Since a big level difference arises between a solar panel and a roof when a solar panel is installed in the roof of a general residence, the appearance of a residence worsens. In addition, since the price of a solar panel is also high, they are the fetters of solar panel spread. Reducing the cost of the whole which lost the level difference with a roof, and improved appearance of a residence, and includes construction of roofing by making a solar panel and roofing into one when a solar panel is laid in view of such a trouble is proposed.

[0003]

[Problem(s) to be Solved by the Invention] However, paying attention so that there may be inclination and a solar panel weak against an impact may not be damaged by drop of a tool etc. on the bad roof of a footing, since the activity which lays solar-battery one apparatus roofing is accompanied by extraordinary difficulty, construction takes time and effort very much. This invention aims to let construction offer the easy fixture for solar-battery one apparatus roofing laying in view of this point.

[0004]

[Means for Solving the Problem] The rail member which formed the supporter of the cross-section L form and cross-section inverted L which invention according to claim 1 is a fixture which lays on a roof solar-battery one apparatus roofing which fixed the solar panel on the front face, and lay the side edge of said roofing in the both sides of a slot, It has the packing material put on the up square corner of the side edge of said roofing, and joint covering attached in said slot. Said rail member is fixed to a roof so that said slot may meet the inclination of a roof. It is characterized by putting said packing material on the up square corner of the side edge of said roofing, laying the side edge of this roofing in said supporter, attaching said joint covering in said slot, and pinching said packing material and said roofing between this joint covering and said supporter.

[0005]

[Function and Effect of the Invention] In order to lay roofing using the fixture for solar-battery one apparatus roofing laying concerning invention according to claim 1 In accordance with the inclination of a roof, arrange a rail member in a vertical NI train, fix, and packing material is put on the up square corner section of the side edge of solar-battery one apparatus roofing. A side edge is laid in the supporter of the body of a fixture, roofing is constructed between both rail members, joint covering is attached in a slot, and packing material and roofing are pinched between joint covering and a supporter. Since solar-battery one apparatus roofing is fixable to a rail only by laying roofing in the supporter of a rail member and attaching joint covering in a slot according to this invention, it can carry out very simply [ the laying activity of roofing ], and easily, and construction does not take time and effort.

[0006]

[Embodiment of the Invention] The fixture 10 for solar-battery one apparatus roofing laying concerning 1 operation gestalt of this invention is shown for explaining this invention based on a drawing below at drawing 1 - drawing 4. The fixture 10 concerned is equipped with the joint covering 15 of the eaves pleuropodium member 12 of a couple

before and after carrying out press working of sheet metal of the rail member 11 of aluminum mold goods, and the stainless steel, the ridge pleuropodium member 13, the rubber packing material 14, and aluminum mold goods.

[0007] The rail member 11 has a cross-section ditch type, supporter 11b of the cross-section L typeface by which the side edge of the solar-battery one apparatus roofing 20 is laid in the 1 side of slot 11a is fabricated, and supporter 11c of a cross-section inverted-L character form is fabricated at the side else. 11d of engagement projections of two articles to which engagement claw part 15a of the joint covering 15 engages with the inner surface of slot 11a is fabricated by the longitudinal direction. The nail hole is formed in the base of slot 11a. Fitting crevice 11e prolonged in a longitudinal direction according to the base and right-and-left both-sides side of slot 11a is formed.

[0008] The fitting heights 12a and 13a which the leg material 12 and 13 has a cross-section portal, and fit into a center section at fitting crevice 11e of the rail member 11 are formed in the longitudinal direction. The nail hole which is open for free passage to the nail hole of the rail member 11 is formed in fitting heights 12a. The leg material 12 by the side of eaves and the leg material 13 by the side of a ridge are fabricated so that the height may apply all to the ridge side edge section and may dwindle them from the eaves side edge section. Opening 12b is formed in the both-sides side of the eaves pleuropodium member 12. At the head of the eaves pleuropodium member 12, upper part bending piece 12c is fabricated. The rail member 11 and the leg material 12 and 13 press the fitting heights 12a and 13a fit in fitting crevice 11e, and are attached to one. Both are attached so that, as for the ends of the rail member 11, only the edge of the leg material 12 and 13 to a necessary dimension may project.

[0009] The rubber packing material 14 is fabricated by the cross-section L typeface so that it may stick to the up square corner of the side edge of the solar-battery one apparatus roofing 20.

[0010] While the joint covering 15 has the almost same width of face as the rubber packing material 14 and fits into a rear face at slot 11a of the rail member 11, engagement pawl of two articles 15a which engages with 11d of engagement projections of the rail member 11 is fabricated. At the head of the joint covering 15, lower part bending piece 15b is fabricated.

[0011] The solar-battery one apparatus roofing 20 fixes the solar panel 21 which pinches solar battery element 21c and changes among protective coat 21bb(s), such as glass, or light transmission object 21a made of resin, aluminum foil, on the front face of a base material 23 with adhesives 22, and is constituted so that it may expand to drawing 5 and may illustrate. The slate boards and ceramic plate which are a kind of a fiber consolidation cement plate are used for the construction material of a base material 23.

[0012] The structure of the fixture 10 for solar-battery one apparatus roofing laying concerning this operation gestalt is as above, and explains the installation approach of this fixture 10 below. As shown in drawing 6, the rail member 11 which covered sarking 30 with the tarpaulin 31 and attached the leg material 12 on it at one is put in order at intervals of the width of face of roofing 20 in accordance with the inclination of a roof from the eaves, nail and wood screw 16 grade is struck against sarking 30 through the nail hole of slot 11a, and the nail hole of the leg material 12, and the rail member 11 is fixed. Put the rubber packing material 14 on the up square corner of the side edge of roofing 20, and lay roofing 20 in the supporters 11b and 11c of the rail member 11, and fit into slot 11a, stop piece 15a of the joint covering 15 is made to engage with 11d of engagement projections, the joint covering 15 is attached in slot 11a, and the rubber packing material 14 and roofing 20 are pinched between the joint covering 15 and Supporters 11b and 11c. When attaching the joint covering 15 in slot 11a, lower part bending piece 15b of the joint covering 15 is put in between the end faces of upper part bending piece 12c of the leg material 12, and the rail member 11, and the front end side of a rail member is worn, and it prevents that storm sewage trespasses upon the background of roofing 20 from an end face.

[0013] Roofing 20 is laid in the longitudinal direction of a roof from the eaves in order in the above way, and then the roofing 20 of the direction upper case of inclination of a roof is laid. In order to lay the roofing 20 of an upper case, when installing the rail member 11, as shown in drawing 7, the edge of the fixture 10 of an upper case is piled up and established in the edge of the fixture 10 of the lower berth. It prevents that storm sewage invades the roofing 20 of an upper case into the back end section of the roofing 20 of the lower berth from superposition and the boundary section of the up-and-down roofing 20 by carrying out like this. The output cable 32 of each roofing 20 is pulled out from the rear face of roofing 20 through opening 12b of the leg material 12, as shown in drawing 6.

[0014] Since the solar-battery one apparatus roofing 20 is fixable only by laying roofing 20 in the supporters 11b and 11c of the rail member 11, and attaching the joint covering 15 in slot 11a according to the fixture 10 for solar-battery one apparatus roofing laying concerning this operation gestalt, it can carry out very simply [ the laying

activity of roofing 20 ], and easily, and construction does not take time and effort. Moreover, since lower part bending piece 15b is prepared in the joint covering 15 and the front end side of the rail member 11 is worn, it can prevent certainly that storm sewage invades from a front end side. Furthermore, since it constituted so that the fixture of an upper case could be piled up and put on the fixture 10 of the lower berth by dwindling the height of leg material, the front end section of the roofing 10 of an upper case can be laid in piles in the back end section of the roofing 10 of the lower berth. Thereby, trespass of the storm sewage from the boundary section of the up-and-down roofing 10 can be prevented.

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[Translation done.]